the Examiner's convenience, all claims currently pending in this application have been reproduced below:

1. (Amended) A moving mechanism, comprising:

a reference structure having a guide surface;

a movable member being movable along the guide surface; and

a plurality of actuators disposed on opposite sides of said movable member, wherein each of said plurality of actuators has a movable element and a stator for driving said movable member two-dimensionally along the guide surface, each of the movable elements of said plurality of actuators is movable together with said movable member, and each of the stators of said plurality of actuators is movable two-dimensionally by a reactor force produced in response to the driving of the movable member.

2. A moving mechanism according to Claim 1, wherein said stators are movable along the guide surface.

3. A moving mechanism according to Claim 1, wherein said stators are movable in the two-dimensional directions along the guide surface.

4. (Amended) A moving mechanism according to Claim 1, wherein each of said actuators is a linear motor having the movable element and the stator.

5. A moving mechanism according to Claim 4, wherein the stator of said linear motor is provided by a coil, and the movable element of said linear motor is provided by a permanent magnet.

6. A moving mechanism according to Claim 4, wherein the stator of said linear motor is provided by a permanent magnet, and the movable element of said linear motor is provided by a coil.

7. A moving mechanism according to Claim 1, further comprising a position measuring device and a driving mechanism, for positioning a reaction force counter being moved along a plane due to a drive reaction force of said movable portion as received by the stators.

8. A stage having a moving mechanism as recited in Claim 1, and having a position measuring device and a driving mechanism for positioning the movable portion.

9. A stage according to Claim 8, further comprising an actuator for controlling the position of the stator.

10. A stage according to Claim 8, wherein said stage is movable in six-axis directions and having a θ and Z tilt stage mounted thereon.

11. An exposure apparatus, comprising:

exposure means for projecting a portion of a circuit pattern on a substrate through a projection optical system, and for printing a predetermined exposure region of the pattern of an original onto the substrate; and

a stage as recited in Claim 8, for moving at least one of the original and the substrate for exposure thereof.

12. An apparatus according to Claim 11, wherein the exposure is performed by scanning exposure in which the original and the substrate are scanningly moved relative to the projection optical system, whereby a predetermined exposure region of the pattern of the original is scanningly printed on the substrate, and wherein, for the scan, at least one of the original and the substrate is moved by said stage.

13. An apparatus according Claim 11, wherein said stage is connected to a barrel base on which the projection optical system is mounted.

14. An apparatus according to Claim 11, wherein ultraviolet light is used as exposure light.

15. An apparatus according to Claim 14, wherein the ultraviolet light is laser light from a laser source.

16. An apparatus according to Claim 15, wherein the laser light is from a fluorine excimer laser.

17. An apparatus according to Claim 15, wherein the laser light is from an ArF excimer laser.

18. An apparatus according to Claim 11, wherein, in said stage, the relation between a stator and a movable element of a linear motor is based on an open structure, and wherein a shielding wall is provided inside the stator, said shielding wall extending from at least one of an illumination optical system and a projection optical system to the substrate structure, while enclosing a movable portion having the movable element, the inside space being purged by use of an inactive gas.

19. An apparatus according to Claim 18, wherein an interferometer for use as position measuring means is provided in a purge area inside the shielding wall.

20. An apparatus according to Claim 19, wherein the interferometer includes a reaction force counter and the reaction force counter is supported by an actuator for producing a thrust in a straight direction, and wherein a drive reaction force in the straight direction is received by a reaction force receiving structure being supported by the floor, separately from the stage base.

21. A device manufacturing method, comprising the steps of:

providing a group of production machines for performing various processes, including an exposure apparatus as recited in Claim 11, in a semiconductor manufacturing factory; and

producing a semiconductor device by performing plural processes using the production machine group.

22. A method according to Claim 21, further comprising (i) connecting the production machines of the group with each other through a local area network, and (ii) executing data-communication concerning information related to at least one production machine of the production machine group, between the local area network and an external network outside the semiconductor manufacturing factory.

23. A method according to Claim 21, wherein a database provided by a vendor or a user of the exposure apparatus can be accessed through the external network so that maintenance information related to the production machine can be obtained through the data communication, and wherein production control can be performed on the basis of data communication through the external network and between the semiconductor factory and a separate semiconductor factory.

24. A semiconductor manufacturing factory, comprising:

a group of production machines, for performing various processes, including an exposure apparatus as recited in any one of Claims 11 - 20;

a local area network for connecting the production machines of the production machine group with each other; and

a gateway for enabling access from the local area network to an external network outside the factory,

wherein information related to at least one production machine in the group can be data communicated by use of the local area network and the gateway.

25. A method of executing maintenance for an exposure apparatus as recited in any one of Claims 11 - 20, provided in a semiconductor manufacturing factory, said method comprising the steps of:

providing, by a vendor or a user of the exposure apparatus, a maintenance database connected to an external network outside the semiconductor manufacturing factory;

admitting access from the semiconductor manufacturing factory to the maintenance database through the external network; and

transmitting maintenance information stored in the maintenance database to the semiconductor manufacturing factory through the external network.

26. An apparatus according to Claim 11, further comprising a display, a network interface and a computer for executing network software, wherein maintenance information related to said exposure apparatus is data communicated through the computer network.

27. An apparatus according to Claim 26, wherein the network software provides on the display a user interface for accessing a maintenance database prepared by a vendor or a user of said exposure apparatus and connected to an external network outside a factory where said exposure apparatus is placed, thereby to enable obtaining information from the database through the external network.

28. An X-Y stage comprising:

a reference structure having a guide surface;

a first movable portion being movable in an X-axis direction along the guide surface;

a first actuator having first movable elements, provided at opposite end portions of said first movable portion, and first stators being movable;

a second movable portion being movable in an Y-axis direction along the guide surface;

a second actuator having second movable elements, provided at opposite end portions of said second movable element, and second stators being movable; and

a stage provided at an intersection defined between said first and second movable portions,

wherein said first stators are separated from each other and said second stators are separated from each other, and each stator is movable in two-dimensional directions by a reaction force produced as an associated movable portion is driven.

29. An X-Y stage according to Claim 28, wherein said first stators are disposed along the X-axis direction while said second stators are disposed along the Y-axis direction.

30. A moving mechanism according to Claim 28, wherein said stators are movable along the guide surface.

31. A moving mechanism according to Claim 28, wherein said stators are movable in the two-dimensional directions along the guide surface.

32. A moving mechanism according to Claim 28, wherein said actuator is a linear motor having a movable element and a stator.

33. A moving mechanism according to Claim 32, wherein the stator of said linear motor is provided by a coil, and the movable element of said linear motor is provided by a permanent magnet.

34. A moving mechanism according to Claim 32, wherein the stator of said linear motor is provided by a permanent magnet, and the movable element of said linear motor is provided by a coil.

35. A moving mechanism according to Claim 28, further comprising a position measuring device and a driving mechanism, for positioning a reaction force counter being moved along a plane due to a drive reaction force of said movable portion as received by the stators. --

Please ADD new claims 36-50 as follows:

-- 36. A moving mechanism, comprising:

a stage being movable two-dimensionally; and

an actuator having a movable element being movable two-dimensionally together with said stage and a stator being movable two-dimensionally by a reaction force produced in response to the driving of said stage, wherein said actuator is adapted to drive said movable element relative to said stator in first and second directions.

37. A moving mechanism according to Claim 36, wherein said actuator includes permanent magnet means and coil means, for driving the movable element relative to the stator in the first and second directions, wherein one of said permanent magnet means and said coil means is provided on the movable element while the other is provided on the stator.

38. A moving mechanism according to Claim 37, wherein said coil means includes a first coil for driving the movable element relative to the stator in the first direction, and a second coil for driving the movable element relative to the stator in the second direction.

39. A moving mechanism according to Claim 38, wherein said permanent magnet means includes a first permanent magnet cooperable with said first coil, and a second permanent magnet cooperable with said second coil.

40. A moving mechanism, comprising:

a stage being movable two-dimensionally; and

a plurality of actuators having movable elements being movable two-dimensionally together with said stage and stators being movable two-dimensionally by a reaction force produced in response to the driving of said stage, wherein said plurality of actuators are disposed on opposite sides of said stage, and each of said plurality of actuators is adapted to drive the movable element relative to the stator in the first and second directions.

41. A moving mechanism according to Claim 40, wherein each of said plurality of actuators includes permanent magnet means and coil means, for driving the movable element relative to the stator in the first and second directions, wherein one of said permanent magnet means and said coil means is provided on the movable element while the other is provided on the stator.

42. A moving mechanism according to Claim 41, wherein said coil means includes a first coil for driving the movable element relative to the stator in the first direction, and a second coil for driving the movable element relative to the stator in the second direction.

43. A moving mechanism according to Claim 42, wherein said permanent magnet means includes a first permanent magnet cooperable with said first coil, and a second permanent magnet cooperable with said second coil.

44. An exposure apparatus for exposing a substrate through an original, said apparatus comprising:

a stage for moving the original or the substrate two-dimensionally; and

an actuator having a movable element being movable two-dimensionally together with said stage and a stator being movable two-dimensionally by a reaction force produced in response to the driving of said stage, wherein said actuator is adapted to drive said movable element relative to said stator in first and second directions.

45. An apparatus according to Claim 44, wherein said actuator includes permanent magnet means and coil means, for driving the movable element relative to the stator in the first and second directions, and one of said permanent magnet means and said coil means is provided on the movable element while the other is provided on the stator.

46. An apparatus according to Claim 45, wherein said coil means includes a first coil for driving the movable element relative to the stator in the first direction, and a second coil for driving the movable element relative to the stator in the second direction.

47. An apparatus according to Claim 46, wherein said permanent magnet means includes a first permanent magnet cooperable with said first coil, and a second permanent magnet cooperable with said second coil.

48. An apparatus according to Claim 44, wherein said stage is moved in the first direction for scan exposure of the substrate through the original, and said apparatus further comprises a position measuring device for measuring the position of the stator with respect to the first direction.

49. An apparatus according to Claim 44, further comprising a stator actuator for driving the stator in the first direction.

50. An apparatus according to Claim 44, wherein said apparatus comprises a plurality of actuators, said plurality of actuators are disposed on opposite sides of said stage, and each of said plurality of actuators is adapted to drive said movable element relative to said stator, in first and second direction. --